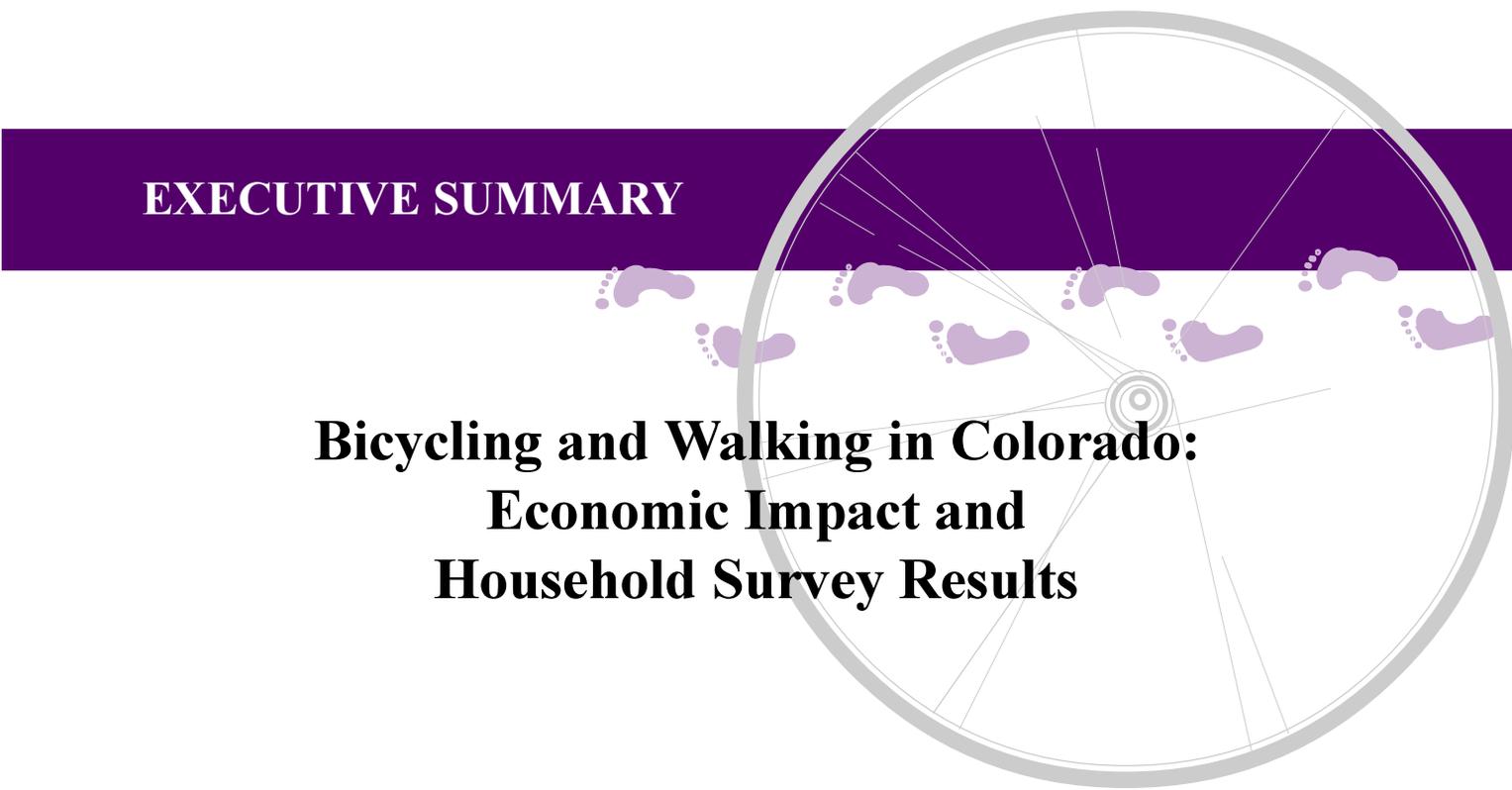


# **BICYCLING AND WALKING IN COLORADO**

**ECONOMIC IMPACT AND HOUSEHOLD SURVEY RESULTS**

**EXECUTIVE SUMMARY**



**EXECUTIVE SUMMARY**

**Bicycling and Walking in Colorado:  
Economic Impact and  
Household Survey Results**

**Executive Summary**

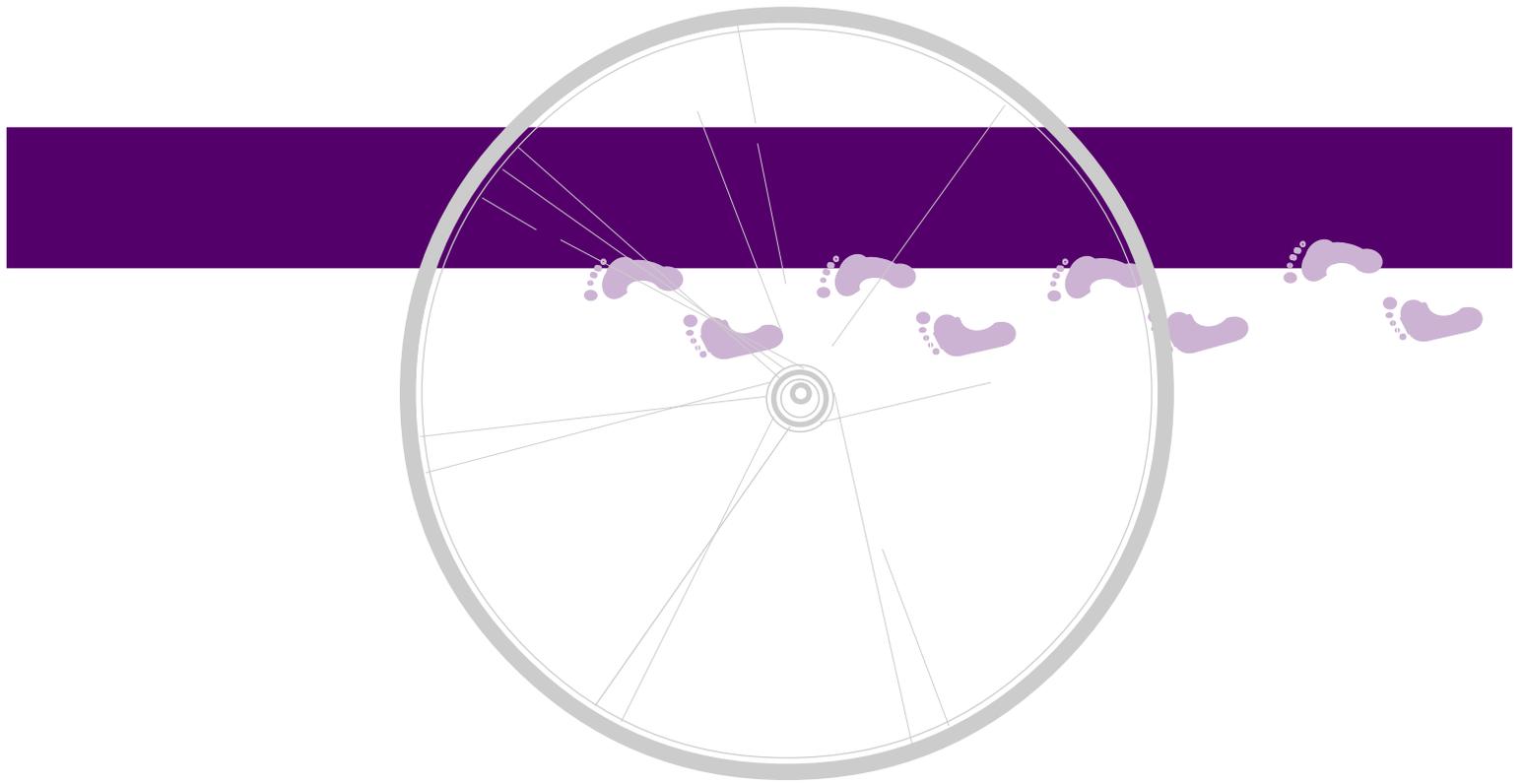
April 2000

*Commissioned by:*

**The Colorado Department of Transportation  
Bicycle/Pedestrian Program**

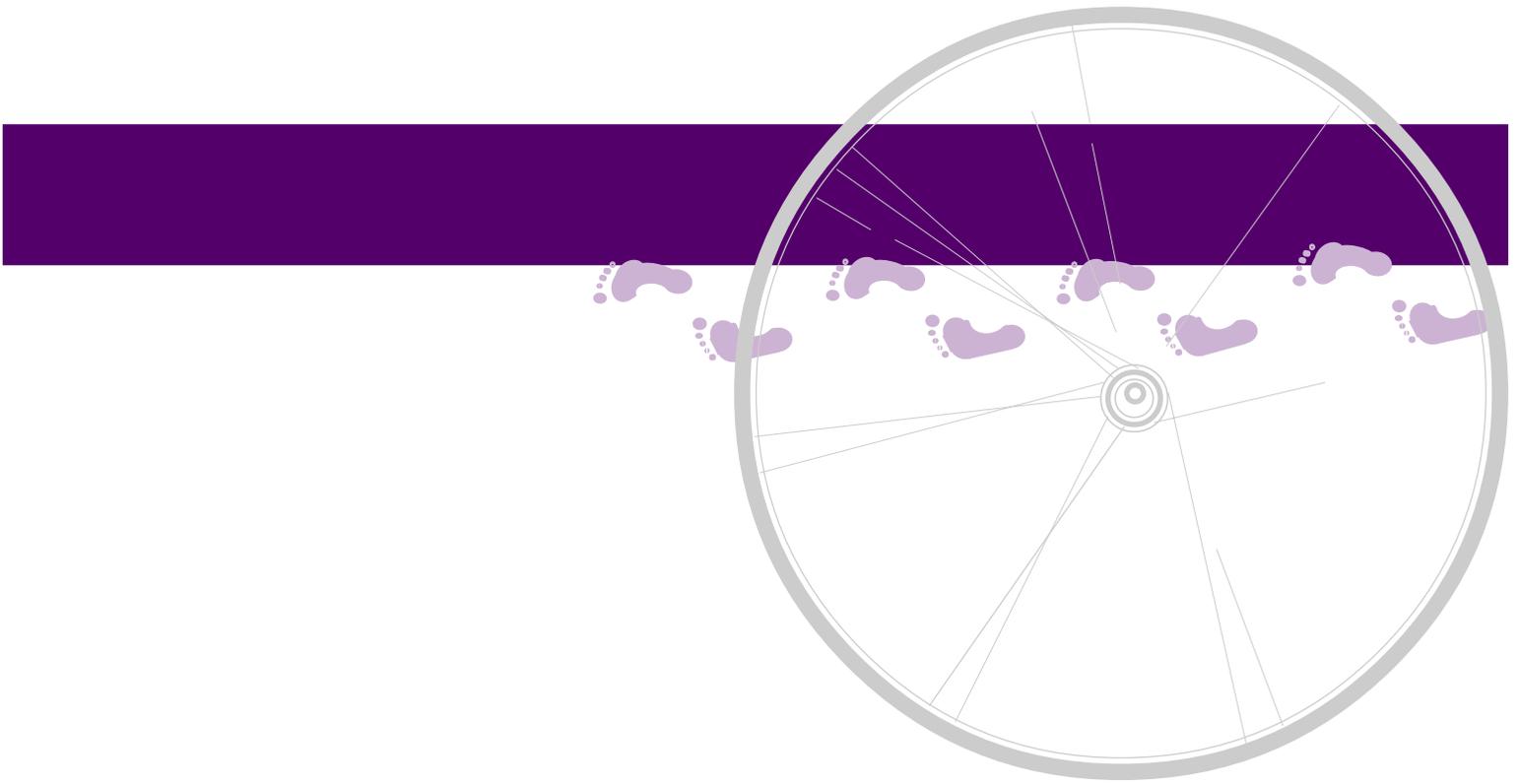
*Survey and Analysis Conducted by:*

**The Center for Research on Economic and Social Policy (CRESP)  
of the University of Colorado at Denver**



# Table of Contents

	Page
Preface .....	iii
Acknowledgements .....	v
The Economic Impact of Bicycling in Colorado .....	vii
Summary of Findings .....	vii
Introduction .....	1
Manufacturing .....	2
Retail .....	2
Tourism .....	5
Household Transportation Survey Results .....	11
Summary of Findings .....	11
Bicycle and Motor Vehicle Ownership .....	17
Commuting .....	17
Recreation .....	21
Preferred Surfaces for Bicycling .....	23
Satisfaction with Bicycling .....	24
Preferences for Bicycle-Related Public Expenditures .....	25
Preferred Funding Sources for Bicycle Improvements .....	26
Factors in Decision to Bicycle .....	27
Remove Barriers to Increase Bicycle Trips .....	31
Bicycle Safety .....	33
Helmet Use .....	33
Bicycle Safety Education .....	38
Crashes .....	40
Pedestrian Safety .....	46
Obstacles to Walking .....	46
Pedestrian Safety Education .....	48
Crashes .....	49

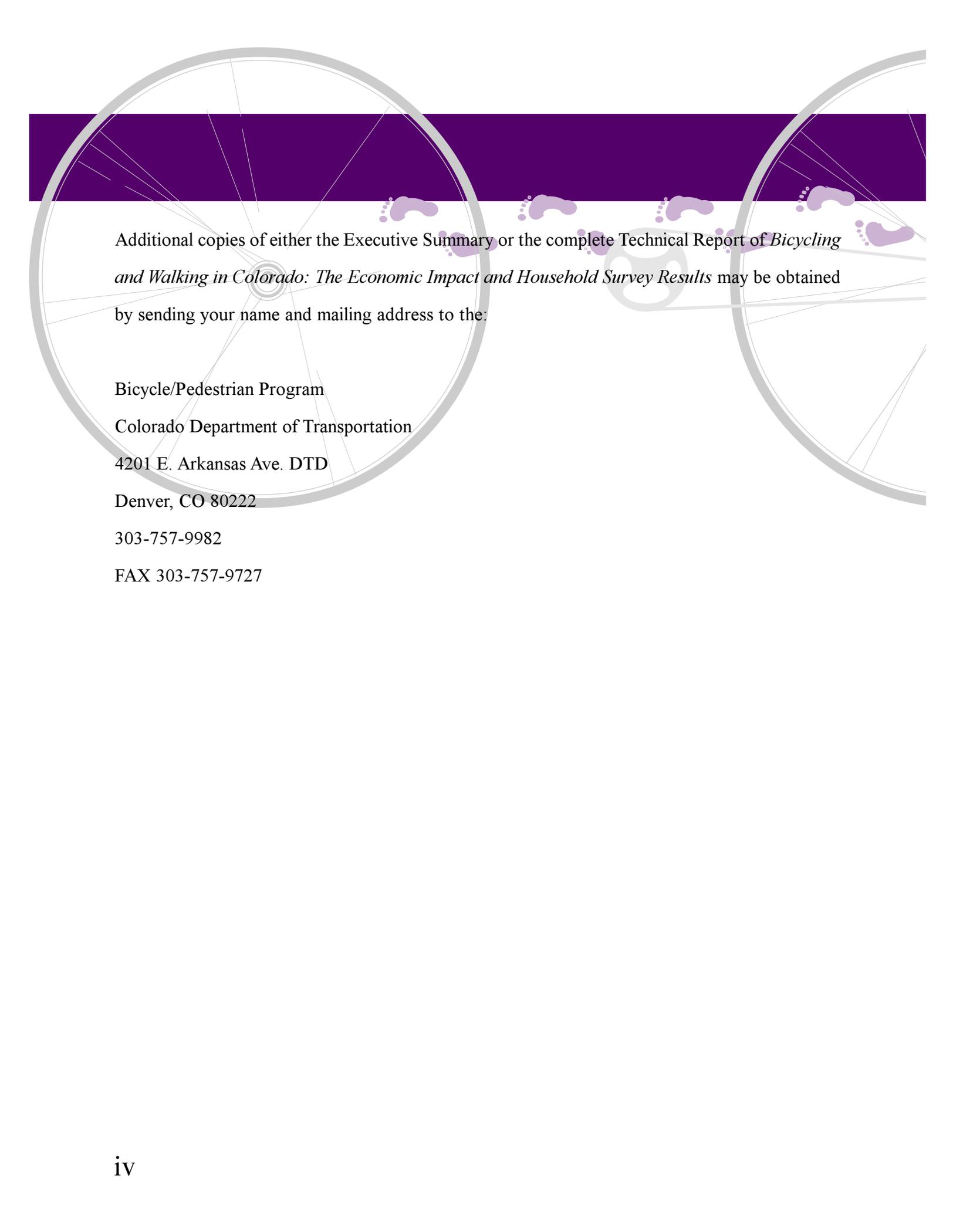


## Preface

Bicycling and walking have long been popular outdoor activities in Colorado as well as throughout the United States. In the 19<sup>th</sup> Century bicycling was primarily a mode of transportation for traveling to and from work or school. During the first half of the 20<sup>th</sup> Century it became primarily a recreational activity or a way of visiting friends or relatives. As we enter the 21<sup>st</sup> Century the bicycle is once again more than a recreational conveyance. It has become an acceptable mode of transportation both within and beyond metropolitan areas. Citizens throughout Colorado are recognizing the energy efficiency, cost effectiveness, health benefits, and environmental advantages of bicycling and it has become an acceptable alternative to the automobile for commuting to work, school, and for shopping.

One important step in the development and improvement of bicycle and pedestrian facilities in Colorado is to define the policies related to their funding, planning, programming, design, maintenance, and to encourage safe travel through education and enforcement. Therefore, the Colorado Department of Transportation initiated this research to provide the agency as well as cities, towns, and counties throughout the state with baseline information from which planning and funding decisions can be made.

In the spring of 1999, 35,912 surveys were mailed to randomly selected households throughout Colorado. The survey contained 117 questions pertaining to personal and household characteristics and the travel habits of the household members. The 16% response rate was the result of 5,771 completed surveys. A complete description of the methodology, a copy of the questionnaire and a detailed analysis of the data are contained in the complete Technical Report.



Additional copies of either the Executive Summary or the complete Technical Report of *Bicycling and Walking in Colorado: The Economic Impact and Household Survey Results* may be obtained by sending your name and mailing address to the:

Bicycle/Pedestrian Program  
Colorado Department of Transportation  
4201 E. Arkansas Ave. DTD  
Denver, CO 80222  
303-757-9982  
FAX 303-757-9727

## Acknowledgements

This research was conducted by the Center for Research on Economic and Social Policy (CRESP) at the University of Colorado at Denver under the direction of the Bicycle/Pedestrian Program at the Colorado Department of Transportation. It was a collaborative effort with guidance from representatives from the bicycle industry, other state agencies, cities, counties, transportation professionals, citizens, and special interest groups. A number of individuals, agencies, businesses, and organizations also contributed through their participation in the development of the questionnaire, meetings, and written review comments.

Thanks, appreciation and recognition are expressed to all those who contributed to this research. A special thanks to the citizens of Colorado for completing the surveys and the numerous individuals from businesses and industry organizations throughout the state for sharing their expertise and economic information crucial to the completion of the study.

### *Center for Research on Economic and Social Policy Research Team*

Dr. Laura M. Argys, Assistant Professor of Economics

Dr. H. Naci Mocan, Professor of Economics and Director of CRESP

John Barela

Tullaya Boonsaeng

Michael Darling

Jennifer Garner

Paul Niemann

Timothy Potter



**Colorado Department of Transportation**

Gay Page, Bicycle/Pedestrian Program Manager and Research Project Manager

Joe Tempel, Intermodal Programs Manager

**Bicycle Colorado**

Martha Roskowski, Executive Director

**Colorado Department of Revenue**

Bennie Catuccio

**Investigator Profiles**

**Laura M. Argys** is Assistant Professor of Economics and an Associate of the Center for Research on Economic and Social Policy at the University of Colorado at Denver. Outlets for her published and forthcoming papers include academic journals such as *Demography*, *Journal of Human Resources*, *Journal of Population Economics*, *Economics of Education Review*, and *Journal of Policy Analysis and Management*. Professor Argys received her Ph.D. in Economics from the University of Colorado at Boulder.

**H. Naci Mocan** is Professor of Economics and Director of the Center for Research on Economic and Social Policy at the University of Colorado at Denver. He is also a Research Associate at the National Bureau of Economic Research. His research papers have been published in numerous academic journals, including *American Economic Review*, *Journal of Human Resources*, *Review of Economics and Statistics*, *Journal of Health Economics*, *Journal of Drug Issues*, *Oxford Bulletin of Economics and Statistics*, *American Journal of Public Health*, and *Economics Letters*. Professor Mocan received his Ph.D. in Economics from City University of New York.